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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,250	06/05/2001	Yuichi Matsumoto	35.C15419	5978

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EXAMINER

SHANNON, MICHAEL R

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 09/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/873,250

Applicant(s)

MATSUMOTO ET AL.

Examiner

Michael R. Shannon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1 and 14-17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5 and 7-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Wehmeyer (USPN 5,781,247), previously cited by Examiner.

Regarding claim 1, the claimed "image processing apparatus" is met as follows:

- The claimed "image input means for inputting an image signal relating to a television broadcast" is met by the VIDEO IN connection pictured in Figure 5 and discussed in column 3, lines 26-28.
- The claimed "menu generation means for generating a menu image signal representing an operation menu relating to processing of the image signal and having a plurality of menu portions at different hierarchical levels each including at least one menu item, and generating a registration menu image signal representing a registration menu having a plurality of items corresponding to said plurality of function keys" is met by OSD Processor

500 of Figure 5, which generates graphics under control of the Main Microprocessor 510 [col. 3, lines 19-22]. The OSD provides a hierarchy of menus for controlling functions affecting the display of the video image [col. 1, lines 50-52], pictures in Figure 7 as item number 710.

Furthermore, the registration menu image signal is met by the FETCH menu, which can have selected functions added to it [col. 2, lines 49-66] and assigned to each one of the plurality of "virtual buttons" discussed in column 2, lines 22-31].

- The claimed "display control means for displaying on a display unit an image corresponding to the image signal output from said image input means and the operation menu corresponding to the menu image signal generated by said menu generation means" is met by the Fast Switch, which can be controlled to display the video image signal and the graphics signal [col. 3, lines 38-43].
- The claimed "instruction input means for receiving an instruction from an operating unit including a plurality of function keys and selection means for selecting a desired item in the operation menu displayed on said display unit" is met by the remote controller 400 pictured in Figure 4, including an up-key and a down-key 409 for selecting functions within the hierarchical menu system and a FETCH key 411 for assigning selected functions to the "virtual buttons" 101-107 [col. 2, lines 22-66].

- The claimed “assignment means for assigning, according to a predetermined operation by the operating unit, a function according to one item selected by said selection means from the items in the operation menu displayed on said display unit to one of said plurality of function keys” is met by the assignment of the desired command from the menu hierarchy to be added to the FETCH menu “virtual buttons” 101-107 [col. 2, lines 43-66].
- The claimed “control means for controlling, in response to said operation of the function key, said image input means to execute processing corresponding to the function assigned to said function key by said assignment means” is met by the user having the ability to cause the execution of the desired command within the FETCH menu of “virtual buttons” based on his selection of the virtual button without having to browse through the complicated hierarchy of menus to access his favorite and/or mostly used commands [col. 1, lines 58-61]. As can be seen in Figure 7, the virtual buttons 701-707 control different functions that are easily accessible and control the image input means to execute that function.
- The claim that “wherein said menu generation means outputs the generated registration menu image signal to said display control means” is met by the output of the virtual buttons for selection by the user to assign the function to that specific button [col. 2, lines 56-60].

- The claim that “wherein the item included in each of the menu portions of the different hierarchical levels of the display operation menu is selected using an up-key and a down-key” is met by the navigation of the menu hierarchy using the up and down direction keys of the key array 409, until the user finds the desired command [col. 2, lines 49-51].
- The claim that “wherein said assignment means assigns a selection state of the item included in each of the menu portions of the different hierarchical levels of the operation menu to one of the plurality of function keys” is met by the fact that any command from any menu or submenu can be assigned to any of locations 103-107 of the FETCH menu [col. 2, lines 43-46].

Regarding claim 3, the claimed “apparatus according to claim 1, wherein said menu generation means generates said registration menu image signal so that said registration menu is displayed adjacent to said operation menu” is met by Figures 2 and 7, which show the FETCH menu 201-207/701-707 during programming (Figure 2) adjacent to the operations menu location 208/708.

Regarding claim 4, the claimed “apparatus according to claim 1, wherein said selection means is also capable of selecting one of the items in said registration menu as desired, and said assignment means assigns the function corresponding to the item selected from said operation menu by said selection means to one of the function keys corresponding to the item selected from the registration menu by said selection means”

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is met by the fact that any command from any menu or submenu can be assigned to any of locations 103-107 of the FETCH menu [col. 2, lines 43-46].

Regarding claim 5, the claimed "apparatus according to claim 1, wherein said "assignment means performs said assignment operation according to the key operation performed by said operating unit to determine one of the items in said registration menu as desired" is met by the fact that any command from any menu or submenu can be assigned to any of locations 103-107 of the FETCH menu [col. 2, lines 43-46].

Regarding claim 7, the claimed "apparatus according to claim 1, wherein said menu portion at the lowest level includes a plurality of menu items corresponding to said plurality of function keys, and said assignment means assigns the function corresponding to the item selected from said operation menu by said selection means to one of the function keys corresponding to the item selected from the menu items at the lowest level by said selection means" is met by the fact that any command from any menu or submenu can be assigned to any of locations 103-107 of the FETCH menu [col. 2, lines 43-46].

Regarding claim 8, the claimed "apparatus according to claim 1, wherein said control means controls said control object in order to execute the function corresponding to the item selected by said selection means from the operation menu displayed on said display unit" is met by the fact that the television receiver provides a hierarchy of menus for controlling functions affecting the display of the video image [col. 1, lines 50-52].

Regarding claim 9, the claimed "apparatus according to claim 1, wherein said operating unit comprises a remote control device" is met by remote control 400 of Figure 4.

Regarding claim 10, the claimed "apparatus according to claim 1, wherein said menu generation means includes a storage unit for storing image data representing said operation menu" is not discussed explicitly by the Wehmeyer reference. However, many discussions throughout the text hint at an inherent memory or storage device for storing the graphics of the menu system. For example, column 2, lines 40-41 teach that a user can program the first three locations of the FETCH menu. The use of the word program inherently teaches a memory to be programmed with information. Furthermore, the OSD generator uses graphics for output to the display screen. Graphics inherently need a place to be stored, therefore making the use of a memory or storage device for storing the image data representing the operation menu inherent [col. 3, lines 19-21].

Regarding claim 11, the claimed "apparatus according to claim 1, wherein said menu generation means includes a storage unit for storing character code data and font data representing said operation menu" is not discussed explicitly by the Wehmeyer reference. However, many discussions throughout the text hint at an inherent memory or storage device for storing the graphics of the menu system. For example, column 2, lines 40-41 teach that a user can program the first three locations of the FETCH menu. The use of the word program inherently teaches a memory to be programmed with information. Furthermore, the OSD generator uses graphics for output to the display

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screen. Graphics inherently need a place to be stored, therefore making the use of a memory or storage device for storing the image data representing the operation menu inherent [col. 3, lines 19-21]. Furthermore, the reference teaches that the user-customizable FETCH menu can either be a graphical display or a text-based menu, or a combination of the two [col. 4, lines 42-46].

Regarding claim 12, the claimed "apparatus according to claim 1, wherein said assignment means includes a memory for storing code data representing functions assigned to said plurality of function keys" is not expressly discussed in the Wehmeyer reference. However, just as in claims 10 and 11, a memory is inherent to the operation of the assignment means. Since any command from any menu or submenu can be assigned to any location of the FETCH menu [col. 2, lines 43-46] and the FETCH menu "virtual buttons" are user-customizable [col. 4, lines 42-46], the use of a memory for storing the functions associated with the buttons is inherent.

Regarding claim 13, the claimed "apparatus according to claim 1, wherein said display control means synthesizes a combined image signal by combining the image signal output from said image input means and the menu image signal generated by said menu generation means, and displays an image corresponding to said combined image signal on the display unit" is met by the fact that the video and the graphics are summed together to create the output for the display screen [col. 3, lines 19-43].

Regarding claims 14-17, see the above rejection of claim 1.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wehmeyer (USPN 5,781,247), previously cited by Examiner.

Regarding claim 6, the Wehmeyer reference teaches all of that which is discussed above with regards to claim 1. The Wehmeyer reference does not, however, teach that the "assignment means performs said assignment operation in response to the absence of any operation by said operating unit during a predetermined time period". The Wehmeyer reference simply discusses the fact that any command from any menu or submenu can be assigned to any of locations 103-107 of the FETCH menu [col. 2, lines 43-46] and that the user confirms the selection of the assignment by pressing the menu key [col. 3, line 67 – col. 4, line 3]. The examiner takes OFFICIAL NOTICE that it is notoriously well known in the art to make default settings after a certain time period of inactivity. Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time of the invention to enable the virtual function buttons to be assigned by default if no button selection is made within a pre-determined time period. This would have been useful in allowing users to continue

operation of the assignment functions as disclosed, in order to simplify the user task and perform the functions required of several buttons to achieve a specific function.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1 and 14-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claims 1 and 14-17 recite the limitation "said plurality of function keys". There is insufficient antecedent basis for this limitation in the claim.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Sato (USP 5,949,407) discloses using up and down keys to browse an on-screen hierarchical menu. However, there is no mention of "function buttons."

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael R. Shannon who can be reached at (571) 272-7356 or Michael.Shannon@uspto.gov. The examiner can normally be reached by phone Monday through Friday 8:00 AM – 5:00PM, with alternate Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at (571) 272-7353.

Any response to this action should be mailed to:

Please address mail to be delivered by the United States Postal Service (USPS) as follows:

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Effective January 14, 2005, except correspondence for Maintenance Fee payments, Deposit Account Replenishments (see 1.25(c)(4)), and Licensing and

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Review (see 37 CFR 5.1(c) and 5.2(c)), please address correspondence to be delivered by other delivery services (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, etc.) as follows:

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Or faxed to: (571) 273-8300


Hand-delivered responses should be brought to:

Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer service whose telephone number is **(571) 272-2600**.

Michael R Shannon
Examiner
Art Unit 2614

Michael R Shannon
September 16, 2005


BRIAN Y. LEE
PRIMARY EXAMINER